Guidelines For Estimating

Cow-Calf Production Costs

Based on a 150 Head Cow Herd

Date: September, 2007

This guide is designed to provide you with planning information and a format for calculating costs of production of a cow calf enterprise. Adjustments will be necessary when applying these figures to your own enterprise.

The budget estimates are based on a number of assumptions which are clearly defined in the supporting pages. Productivity and performance assumptions are based on data supplied by specialists as well as data collected from certain producers. Input costs are based on recommended practices and/or information obtained from producers. Good management is assumed in that a balanced ration is being fed, livestock are on a herd health program and handling facilities are included.

Disclaimer: This budget is only a guide and is not intended as an in depth study of the cost of production of the Manitoba cattle industry. Interpretation and utilization of this information is the responsibility of the user. If you require assistance with developing your individual budget, please contact your local MAFRI Business Development Specialist or Livestock Farm Production Extension Specialist.

Cow-Calf Production Costs September, 2007
Based on a 150 Cow Herd

A. Operating Costs	Cost/Cow	Total Cost	Your Cost
1. Feed Costs			
1.01 Grain	$8.50	$1,275	
1.02 Hay	$173.50	$26,025	
1.03 Salt & Minerals	$15.75	$2,363	
Total Feed Cost	**$197.75**	**$29,663**	
2. Other Operating Costs			
2.01 Straw	$20.00	$3,000	
2.02 Veterinary Medicine & Supplies	$19.89	$2,984	
2.03 Breeding Costs	$34.45	$5,168	
2.04 Fuel, Maintenance & Repairs	$28.00	$4,200	
2.05 Utilities	$10.00	$1,500	
2.06 Marketing & Transportation	$23.32	$3,498	
2.07 Death Loss	$10.63	$1,594	
2.08 Manure Removal	$16.67	$2,501	
2.09 Insurance	$6.91	$1,037	
2.10 Herd Replacement	$66.00	$9,900	
2.11 Miscellaneous	$6.67	$1,001	
Subtotal Operating Costs	$440.29	$66,046	
2.12 Operating Interest	$14.31	$2,146	
Total Operating Costs	**$454.59**	**$68,192**	
B. Fixed Costs			
3. Depreciation			
3.01 Buildings	$16.78	$2,517	
3.02 Machinery & Equipment	$42.67	$6,401	
4. Investment			
4.01 Buildings	$6.71	$1,007	
4.02 Machinery & Equipment	$12.80	$1,920	
4.03 Livestock	$34.00	$5,100	
4.04 Pasture Land & Fencing	$75.34	$11,301	
Total Fixed Costs	**$188.30**	**$28,246**	
Total Operating and Fixed Costs	**$642.90**	**$96,438**	
C. Labour	$99.00	$14,850	
Total Cost of Production	**$741.90**	**$111,288**	

Breakeven price	$/cwt	
A. Operating Costs	$83.22	
B. Operating & labour Costs	$101.34	
C. Operating & Fixed Costs	$117.69	
D. Operating, Fixed & Labour Costs	$135.82	

Breakeven Price $/cwt = Cost ÷ 95% calf crop ÷ calf weight (5.75cwt)

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Assumptions

1. This budget outlines the cost of production for a cow calf operation with 150 cows, 6 bulls and 95% calf crop weaned.
2. Building and equipment are valued at new cost.
3. All feed is valued at market value.
4. Manure removal is contracted out.
5. Replacement heifers are valued at fair market value.
6. This budget assumes an average weaning weight of 575 lbs. (steer calves 600 lbs and heifer calves 550 lbs.)

Cow-Calf Production Worksheet

A. Operating Costs

1. Feed Costs

1.01 Barley (processed)

	2.00	lbs barley/cow/day	_____
x	60.00	days/year	_____
÷	48.00	lbs/bu	_____
x	$3.40	/bushel	_____
=	**$8.50**	**/cow**	_____

1.02 Hay (for cows)

	2.50	tons good quality	_____
x	$55.00	/ton	_____
=	$137.50	/cow	_____
	1.20	tons low quality	_____
x	$30.00	/ton	_____
=	$36.00	/cow	_____
Total =	**$173.50**	**/cow**	_____

1.03 Salt and Minerals

	35.00	lbs salt/cow/year	_____
x	$0.12	/lb	_____
=	$4.20	/cow	_____
	35.00	lbs mineral/cow/year	_____
x	$0.33	/lb	_____
=	$11.55	/cow	_____
Total =	**$15.75**	**/cow**	_____

2. Other Operating Costs

2.01 Straw

	1.00	tons/cow/year	
x	$20.00	/ton	
=	**$20.00**	**/cow**	

2.02 Veterinary Medicine & Supplies

Calf Medication

	$0.53	/calf blackleg	
x	95.00	% calf crop	
=	$0.51	/cow	

Cow Medication

	$2.55	/cow IBR	
+	$3.45	/cow scourguard	
+	$5.20	/cow parasite control	
+	$0.65	/cow ADE	
=	$11.85	/cow	

Herd Health Program

	$135.00	/hour charge	
x	6.00	hours	
÷	150.00	cows	
=	$5.40	/cow	

Mileage

	$1.00	/km charge	
x	80.00	kilometres	
x	4.00	visits	
÷	150.00	cows	
=	$2.13	/cow	

Total	=	**$19.89**	**/cow**	

2.03 Breeding Costs

Feed for Bulls

Hay

	4.00	tons good quality	
x	$55.00	/ton	
x	6.00	bulls	
÷	150.00	cows	
=	$8.80	/cow	

Barley	7.00	lbs barley/bull/day	
x	120.00	days	
÷	48.00	lbs/bu	
x	$3.40	/bushel	
x	6.00	bulls	
÷	150.00	cows	
=	$2.38	/cow	
Total =	$11.18	/cow	

Straw for Bulls

	1.00	tons/bull/year	
x	$20.00	/ton	
x	6.00	bulls	
÷	150.00	cows	
=	$0.80	/cow	

Vet & Medicine for Bulls

	$55.00	semen test	
+	$10.00	total vet cost/bull	
x	6.00	bulls	
÷	150.00	cows	
=	$2.60	/cow	

Replacement of Bulls

	$2,200	bull cost	
-	$750	bull salvage value	
x	25.00	% replacement rate	
x	6.00	bulls	
÷	150.00	cows	
=	$14.50	/cow	

Investment in Bulls

	$2,200	bull cost	
+	$750	bull salvage value	
÷	2.00	average	
x	4.00	% investment rate	
x	6.00	bulls	
÷	150.00	cows	
=	$2.36	/cow	

Pasture Costs for Bulls

	$75.34	/bull pasture cost	
x	6.00	bulls	
÷	150.00	cows	
=	$3.01	/cow	
Total =	**$34.45**	**/cow**	

2.04 Fuel, Oil, Repairs & Maintenance

Machinery

	$1,800	annual fuel cost	
+	$1,350	oil, repairs & maintenance	
÷	150.00	cows	
=	$21.00	/cow	

Buildings,Fences etc.

	$1,050	repairs & maintenance	
÷	150.00	cows	
=	$7.00	/cow	
Total =	**$28.00**	**/cow**	

2.05 Utilities

	$1,500	annual cost	
÷	150.00	cows	
=	**$10.00**	**/cow**	

2.06 Marketing & Transportation

Trucking

Calves	143	calves	
x	575.00	lbs/calf	
x	$1.50	/cwt (trucking cost)	
÷	150.00	cows	
=	$8.22	/cow	
Cull Cows	18.00	cull cows	
-	2.00	cows died	
x	1,350.00	lbs/cow	
x	$1.50	/cwt (trucking cost)	
÷	100.00	lbs/cwt	
÷	150.00	cows	
=	$2.16	/cow	

MCEC Levy, MCPA Levy, selling commission & insurance

Calves	$2.00	MCEC Fee	
+	$3.00	MCPA Levy	
+	$17.00	Commission, Insurance	
x	143	calves	
÷	150.00	cows	
=	$20.97	/cow	
Cull Cows			
	$2.00	MCEC Fee	
	$3.00	MCPA Levy	
+	$17.00	Commission, MCPA	
x	16	cull cows	
÷	150.00	cows	
=	$2.35	/cow	
Total =	**$23.32**	**/cow**	

2.07 Death Loss

x	$850	/cow investment	
x	1.25	% mortality rate	
=	**$10.63**	**/cow**	

2.08 Manure Removal

	$2,500	annual removal cost	
÷	150.00	cows	
=	**$16.67**	**/cow**	

2.09 Insurance

	$850	$/cow investment	
x	$0.45	/$100 capital	
÷	100.00	/100	
=	$3.83	/cow	
	$137,340	building and equipment investment	
x	$0.30	/$100 capital	
÷	100.00	/100	
÷	150.00	cows	
=	$2.75	/cow	
	$49.00	liability	
÷	150.00	cows	
=	$0.33	/cow	
Total =	**$6.91**	**/cow**	

2.10 Herd Replacement

	$1,000	/replacement heifer	
-	$450	/cull cow	
x	12.00	% replacement rate	
=	**$66.00**	**/cow**	

2.11 Miscellaneous

	$1,000	total office expenses	
÷	150.00	cows	
=	**$6.67**	**/cow**	

2.12 Operating Interest

(Operating interest is charged on one half of the subtotal operating costs)

	$440.29	subtotal operating costs	
÷	2.00	average	
x	6.50	% operating interest	
=	**$14.31**	**/cow**	

Capital Costs

Buildings & Water System		
Windbreak Fence	$4,000	_____
Feedlot Fence	$4,000	_____
Calf Shelters	$8,000	_____
Handling Facilities	$5,500	_____
Calving Barn (30'x32')	$9,600	_____
Waterers (3 @ $ 1000)	$5,000	_____
Pasture watering system	$4,000	_____
Pasture water source	$3,000	_____
Gates	$840	_____
Round Bale Feeders	$1,500	_____
Well & Pressure System	$6,000	_____
Hydro (6 poles @ $400)	$2,400	_____
Storage Bins	$3,500	_____
Total Building Cost	**$57,340**	_____
Machinery & Equipment		
Miscellaneous Machinery	$5,000	_____
Tractor & Loader ($100,000 @30%)	$30,000	_____
Bale Shredder	$13,000	_____
Stock Trailer	$12,000	_____
Truck ($30,000 @ 50%)	$20,000	_____
Total Machinery & Equipment Cost	**$80,000**	_____
Total Bldg., Mach. & Equip.	**$137,340**	_____
Total Breeding Herd Value	**$127,500**	_____
Total Capital Investment	**$264,840**	_____

B. Fixed Costs

3. Depreciation $\dfrac{\text{Original Cost - Salvage Value}}{\text{Useful Life}}$

3.01 Buildings & Water System (not including pasture water system)

	$50,340	original cost	_____
-	0.00	salvage value	_____
÷	20.00	years useful life	_____
÷	150.00	cows	_____
=	**$16.78**	/cow	_____

3.02 Machinery & Equipment

$80,000	original cost	
- $16,000	salvage value	
÷ 10.00	years useful life	
÷ 150.00	cows	
= **$42.67**	**/cow**	

4. Investment

$$\frac{\text{Original Cost + Salvage Value}}{2} \times \text{Investment Rate}$$

4.01 Buildings

$50,340	original cost	
+ $0.00	salvage value	
÷ 2.00	average	
x 4.00	% investment rate	
÷ 150.00	cows	
= **$6.71**	**/cow**	

4.02 Machinery & Equipment

$80,000	original cost	
+ $16,000	salvage value	
÷ 2.00	average	
x 4.00	% investment rate	
÷ 150.00	cows	
= **$12.80**	**/cow**	

4.03 Livestock

$850	/cow	
x 4.00	% investment rate	
= **$34.00**	**/cow**	

4.04 Pasture

A. Marginal Land
Investment

Land 7.00	acres/cow	
x $275.00	/acre	
x 4.00	% investment rate	
= $77.00	/cow	

Fence				
		$23,800	total fence investment	
	+	$0	salvage value	
	÷	2.00	average	
	x	4.00	% investment rate	
	÷	150.00	cows	
	=	$3.17	/cow	
Pasture Water System				
		$7,000	system & source	
	+	$0	salvage value	
	÷	2.00	average	
	x	4.00	% investment rate	
	÷	150.00	cows	
	=	$0.93	/cow	
Total Investment	=	$81.11	/cow	
Depreciation				
Fence		$23,800	total fence investment	
	-	$0	salvage value	
	÷	20.00	years useful life	
	÷	150.00	cows	
	=	$7.93	/cow	
Pasture Water system				
		$7,000	system & dugout	
	-	$0	salvage value	
	÷	20.00	years useful life	
	÷	150.00	cows	
	=	$2.33	/cow	
Total	=	$10.27	/cow	
Taxes		7.00	acres/cow	
	x	$2.00	/acre	
	=	$14.00	/cow	
Total	=	**$105.37**	**/cow**	
B. Crop Land Investment				
Land		3.00	acres/cow	
	x	$475	/acre	
	x	4.00	% investment rate	
	=	$57.00	/cow	

Fence			
	$15,300	total fence investment	
+	$0	salvage value	
÷	2.00	average	
x	4.00	% investment rate	
÷	150.00	cows	
=	$2.04	/cow	
Pasture Water System			
	$7,000	system & source	
+	$0	salvage value	
÷	2.00	average	
x	4.00	% investment rate	
÷	150.00	cows	
=	$0.93	/cow	
Total Investment =	$59.97	/cow	
Depreciation			
Fence	$15,300	total fence investment	
-	$0	salvage value	
÷	20.00	years useful life	
÷	150.00	cows	
=	$5.10	/cow	
Pasture Water system			
	$7,000	system & source	
-	$0	salvage value	
÷	20.00	years useful life	
÷	150.00	cows	
=	$2.33	/cow	
Total =	$7.43	/cow	
Taxes			
	3.00	acres/cow	
x	$5.30	/acre	
=	$15.90	/cow	
Total =	**$83.00**	**/cow**	

C. Crown Land:

Depreciation

Fence	9.38	miles of fence	
x	$3,400	/mile	
=	$31,875	fence cost	
-	$3,188	salvage value	
÷	20.00	years useful life	
÷	150.00	cows	
=	$9.56	/cow	
Pasture Water system			
	$7,000	system & source	
-	$0	salvage value	
÷	20.00	years useful life	
÷	150.00	cows	
=	$2.33	/cow	
Total Depreciation =	$11.89	/cow	

Investment

Fence	$31,875	fence cost	
+	$3,188	salvage value	
=	$35,063	total invested	
÷	2.00	average	
x	4.00	% investment rate	
÷	150.00	cows	
=	$4.68	/cow	
Pasture Water System			
	$7,000	system & source	
+	$0	salvage value	
÷	2.00	average	
x	4.00	% investment rate	
÷	150.00	cows	
=	$0.93	/cow	
Total Investment =	$5.61	/cow	

Land Rental (includes taxes)

	$246	/quarter, rental rate	
÷	12.00	cows/quarter	
=	$20.50	/cow	
Total =	**$38.00**	**/cow**	

D. P.F.R.A.: Community Pasture Grazing

Cows

	$0.40	cost/cow/day	
x	140.00	days	
=	$56.00	/cow	

Calves

x	$20.00	/calf/season	
x	142.50	calves on pasture	
÷	150.00	cows on pasture	
=	$19.00	/cow	

Total	=	**$75.00**	**/cow**

Average (A,B,C,D)	=	**$75.34**	**/cow**

C. Labour

	9.00	hours/cow/year	
x	$11.00	/hour	
=	**$99.00**	**/cow**	

For further information contact your local MAFRI office.

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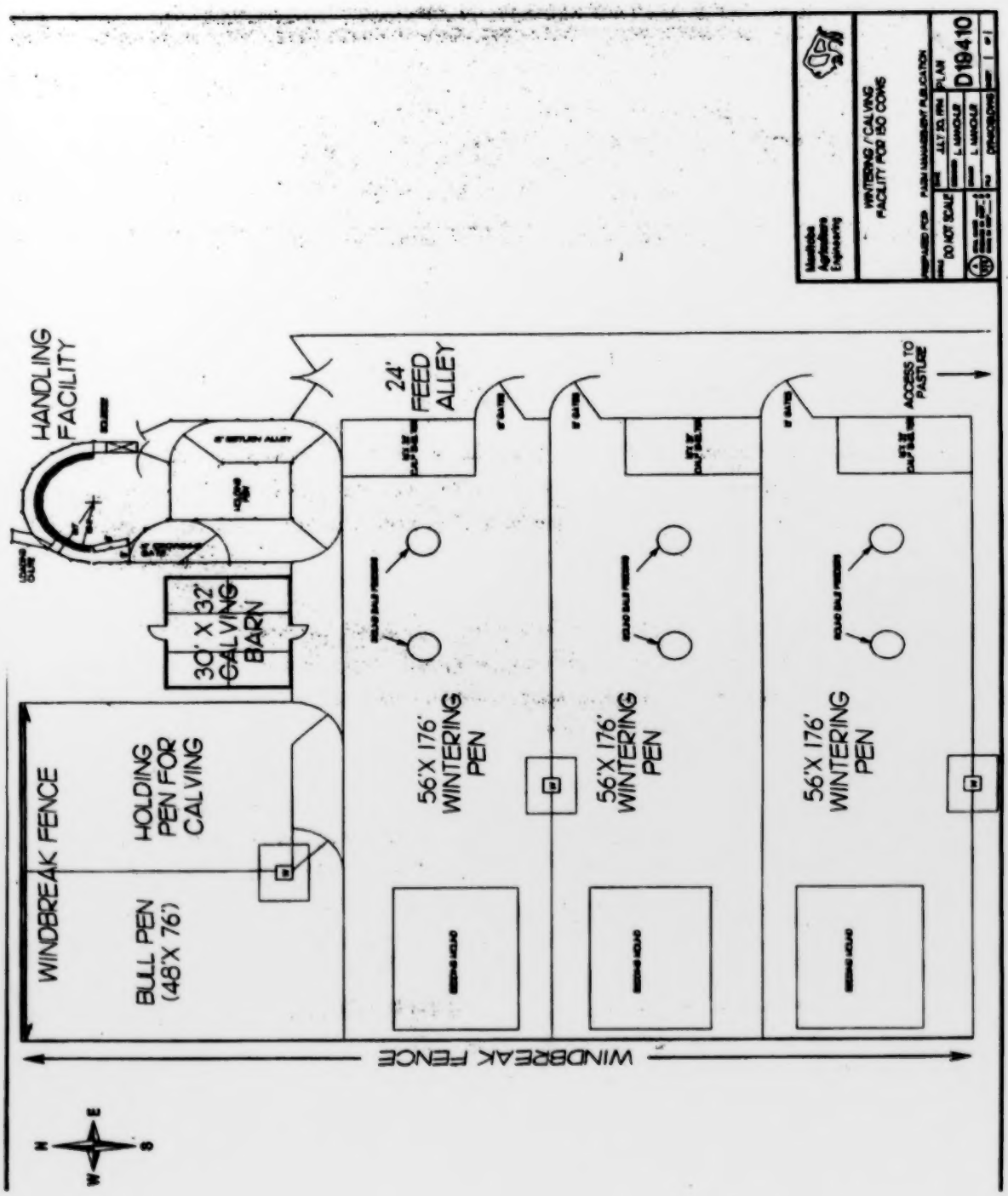
Cow-Calf Operating Facilities



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